

Patent Claims

1. A method for analyzing user data organized
5 according to a database structure,
- in which a common statistical probability model is
ascertained for the user data organized according to
the database structure,
- in which the user data organized according to the
10 database structure are analyzed using a statistical
analysis method, with the statistical analysis method
used for the analysis being applied to the common
statistical probability model.
- 15 2. The method as claimed in claim 1,
in which the user data organized according to the
database structure are organized into user data
records, which user data records each represent an
object, with the user data in a user data record
20 describing properties of the respective object.
3. The method as claimed in claim 1 or 2,
in which the common statistical probability model is
ascertained on the basis of a hidden variable.
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4. The method as claimed in one of claims 1 to 3,
in which the common statistical probability model is
ascertained on the basis of structure learning.
- 30 5. The method as claimed in one of the preceding
claims,
in which the statistical analysis method is applied to
the common statistical probability model such that a
common probability in the common probability model is
35 used as input variable for the statistical analysis
method.

6. The method as claimed in one of the preceding claims,
in which the statistical analysis method used is a method based on a data mining method.

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7. The method as claimed in claim 6,
in which the statistical analysis method used is a clustering method.

10 8. The method as claimed in claim 6,
in which the statistical analysis method used is a method known by the name "association rules".

9. The method as claimed in claim 6,
15 in which the statistical analysis method used is a decision tree.

10. The method as claimed in one of the preceding claims,
20 in which the analysis using the statistical analysis method involves dependencies between the user data being ascertained and/or the significances thereof being ascertained on the basis of a statistical test.

25 11. The method as claimed in one of the preceding claims,
in which the common statistical probability model is ascertained and the common statistical probability model is analyzed by the statistical analysis method at
30 different times and locations.

12. The method as claimed in one of the preceding claims,
in which the user data are stored in a database.

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13. The method as claimed in one of claims 2 to 12,

in which the object is a customer who is described by at least two of the following properties: age, income, product purchased, date of purchase, frequency of purchases.

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14. The method as claimed in one of the preceding claims,
used in the data warehouse, with the user data describing the data warehouse.

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15. The method as claimed in one of claims 1 to 13,
used in customer relationship management or supply chain management, with the user data being customer data or product data.

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16. An arrangement for analyzing user data organized according to a database structure,

- having a modeling unit which can be used to ascertain a common statistical probability model for
20 the user data organized according to the database structure,

- having an analysis unit which can be used to analyze the user data organized according to the database structure using a statistical analysis method
25 such that the statistical analysis method used for the analysis is applied to the common statistical probability model.

17. A computer program product which comprises a
30 computer-readable storage medium storing a program which, after it has been loaded into a memory in a computer, allows the computer to perform the following steps to analyze user data organized according to a database structure:

35 - a common statistical probability model is ascertained for the user data organized according to the database structure,

- the user data organized according to the database structure are analyzed using a statistical analysis method, with the statistical analysis method used for the analysis being applied to the common statistical probability model.

18. A computer-readable storage medium storing a program which, when it has been loaded into a memory in a computer, allows the computer to perform the following steps to analyze user data organized according to a database structure:

- a common statistical probability model is ascertained for the user data organized according to the database structure,

15 - the user data organized according to the database structure are analyzed using a statistical analysis method, with the statistical analysis method used for the analysis being applied to the common statistical probability model.

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19. A computer program having program code means for performing all of the steps as claimed in claim 1 when the program is executed on a computer.

25 20. The computer program having program code means as claimed in claim 18 which are stored on a computer-readable data storage medium.

21. A computer program product having program code means stored on a machine-readable medium for performing all of the steps as claimed in claim 1 when the program is executed on a computer.

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